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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,816	02/19/2002	Joseph Raymond Dichl	8868	7132

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EXAMINER

ANDERSON, CATHARINE L

ART UNIT	PAPER NUMBER
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3761

MAIL DATE	DELIVERY MODE
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07/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/078,816

Applicant(s)

DIEHL ET AL.

Examiner

C. Lynne Anderson

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21,22,24-39 and 41-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35,36 and 42-44 is/are allowed.
- 6) ☒ Claim(s) 21,22,24-34,37-39 and 41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Allowable Subject Matter***

The indicated allowability of claims 31-34 is withdrawn in view of the newly considered reference(s) to Neading, Hsu, and Flam. Rejections based on the newly considered reference(s) follow.

### ***Response to Amendment***

Upon further consideration of the finality of the rejection of the last Office action, the finality of that action is withdrawn.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-22, 24-25, 27-34, 37-39, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neading et al. (6,515,194) in view of Hsu (5,922,283) and further in view of Flam (5,181,905) and Lee (5,947,943).

With respect to claims 21, 37, and 40, Neading discloses a wearable article, as shown in figure 2, comprising a topsheet 18 and a dehydration indicator 14A, 16. The dehydration indicator 14A, 16 exhibits a visible response elicited by the specific gravity, as disclosed in column 4, lines 1-8. The wearable article is an absorbent article, as shown in figure 2, comprising an outer cover 22, a fluid permeable topsheet 18, and an

absorbent structure 20. The level of specific gravity inherently indicates the level of dehydration.

Neading remains silent as to the method of measuring specific gravity, and does not explicitly disclose the measuring of the urine ionic strength in order to determine the specific gravity of the urine. Hsu teaches the use of test strips to determine the specific gravity of urine by measuring the urine ionic strength. The test strips comprise an absorbent material impregnated with a reagent that exhibits a color change upon contact with urine to indicate the ionic strength and subsequently the specific gravity of the urine, as disclosed in column 8, lines 3-12. Neading discloses the need for a material that undergoes a color change elicited by specific gravity, as described in column 4, lines 1-4, by contacting the material with absorbed urine, thus providing a motivation to measure any parameter that would allow the determination of specific gravity from a color change. It would therefore be obvious to one of ordinary skill in the art at the time of invention to provide the test strip material of Hsu as the strip of material disclosed by Neading, to provide an indicator designed for absorption of urine that undergoes a color change elicited by specific gravity.

Neading, as modified by Hsu, fails to disclose the dehydration indicator comprising an alphanumeric character indicative of a level of dehydration. Neading and Hsu disclose a color change indicative of a level of dehydration. Flan teaches the use of letters and numbers to indicate a physical property of a liquid absorbed by an absorbent article, as shown in figure 3. The use of letters and numbers as indicia allow the user to more easily recognize a change in the property and administer appropriate

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treatment, as disclosed in column 4, lines 56-68. It would therefore be obvious to one of ordinary skill in the art at the time of invention to provide the indicator of Neading, as modified by Hsu, with alphanumeric characters, as taught by Flan, to allow the user to more easily recognize a change in the property and administer appropriate treatment.

Neading, as modified by Hsu and Flan, fails to disclose a translucent cover. Lee discloses an absorbent article having an indicator located therein, as described in column 3, lines 12-15. The outer cover 16 of the article is translucent so the indicator may be easily viewed without removing the article, as disclosed in column 3, lines 46-55. The outer cover 16 provides a barrier to moisture, as disclosed in column 3, line 6, which prevents liquids from leaking from the article and protects the indicator from exterior liquids. It would therefore be obvious to one of ordinary skill in the art at the time of invention to make the outer cover of Neading as modified by the teaching of Hsu, translucent, as taught by Lee, so the indicator is protected by the cover but still easily viewed without removal of the article.

With respect to claims 22 and 38, the visible signal is triggered by the ionic strength exceeding a predetermined threshold, and therefore is visible when the ionic strength exceeds the threshold.

With respect to claims 24-25 and 39, the visible signal for a second level of ionic strength is represented by a different color.

With respect to claims 27 and 41, Neading discloses a fluid transport element 14C, which is in fluid communication with the dehydration indicator 14A, as described in column 3, lines 52-55.

With respect to claims 28-30, Flam discloses alphanumeric characters juxtaposed next to color change zones, as shown in figure 1.

With respect to claims 31-34, the alphanumeric characters forming a word descriptive of the level of dehydration is not given patentable weight because no new functional relationship exists between the printed matter and the article to which it is attached. In order for the printed matter to impart patentability to the article, there must be a new and non-obvious functional relationship between the printed matter and some element of the article. Since the claimed printed matter merely provides an indicia for the level of dehydration, which is already indicated by a color change, the functional relationship between the printed matter and the article is considered obvious.

***Allowable Subject Matter***

Claims 35-36 and 42-44 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to disclose a semipermeable membrane covering the entirety of the wearer-facing surface of the chemical indicating composition, the semipermeable membrane comprising cellulose acetate, cellulose diacetate, cellulose triacetate, agar acetate, beta glucan acetate, polymeric expoxides, semipermeable polyurethanes, or semipermeable polyglycolic acid. The prior art of record does not disclose or fairly suggest covering the entire wearer-facing surface of the chemical indicating composition with a semipermeable membrane.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Lynne Anderson whose telephone number is (571) 272-4932. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tanya Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*CLA*  
cla

July 16, 2007

TATYANA ZALUKAEVA  
SUPERVISORY PRIMARY EXAMINER

*TZalukaeva*